

REMARKS

Applicant has reviewed and considered the Office Action mailed on July 18, 2003, and the references cited therewith.

No claims are amended, no claims are canceled, and no claims are added; as a result, claims 1-35 are pending in this application, where claims 1-6 are currently pending consideration. Applicant respectfully requests reconsideration of the above-identified application in view of the remarks that follow.

In the Specification

The Specification is amended to update the status of the application from which the instant application derives its priority and to update the status a co-pending, commonly assigned application reference in the specification.

Affirmation of Election

As provisionally elected by Applicants representative, David Cochran, on July 10, 2003, Applicant elects to prosecute the invention of Species I, having claims 1-6 readable thereon.

First §103 Rejection of the Claims

Claims 1, 2, and 6 were rejected under 35 USC § 103(a) as being unpatentable over Gregor et al. (U.S. Patent No. 6,008,091) in view of Shi et al. ("Tunneling Leakage Current..."). Applicant traverses these grounds for rejection.

Applicant respectfully submits that the Office Action did not make out a proper *prima facie* case of obviousness since the cited references fail to teach or suggest all of the elements of Applicant's claimed invention.

Applicant can not find in Gregor a teaching or suggestion of a method for forming an enhancement mode p-channel memory cell that includes forming an oxide layer of less than 50 Angstroms on a substrate and forming a floating gate on the oxide layer, as recited in claim 1. Gregor deals primarily with an integrate dielectric between a floating silicon gate and a control silicon gate. *See, Gregor, Abstract and Summary.*


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Shi et al. (hereafter Shi) deals with forming nitride/oxide dielectrics to replace an oxide layer in NMOS devices. Applicant can not find a teaching or suggestion in Shi regarding a nitride/oxide dielectric to replace an oxide layer in an enhancement mode p-channel device. The Office Action has not provided objective evidence or reasoning that demonstrates that Shi's nitride/oxide dielectrics are applicable to an enhancement mode p-channel device. The Office Action must provide specific, objective evidence of record for a finding of a suggestion or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

Further, the Office Action states "it would be obvious to modify the method of forming an enhanced mode p-channel memory cell as taught by Gregor et al. and incorporate a ultra-thin nitride/oxide having a thickness less than 4 nm to replace silicon dioxide as the gate dielectric formed between the substrate and the gate as taught by Ying Shi, Xiewen Wang and T.P. Ma, in order to reduce tunneling leakage current and improve reliability." Thus, following the combination proposed in the Office Action, Gregor's MOS memory device with Shi's nitride/oxide gate dielectric does not have an oxide layer formed on its substrate with a floating gate formed on the oxide layer as recited in claim 1, since Shi forms a nitride layer in contact with an oxide layer. Thus, Gregor in view of Shi does not teach or suggest all the elements as recited in claim 1.

Further, the proposed combination in the Office Action replacing an oxide layer with a nitride/oxide does not consider Applicant's claimed invention as a whole. In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985); MPEP § 2141.02.

Thus, for the reasons stated above, Applicant submits that the Office Action has not established a proper *prima facie* case of obviousness with respect to claim 1, and that claim 1 is patentable over Gregor in view of Shi.



Claims 2 and 6 depend on claim 1, and are patentable over Gregor in view of Shi for the reasons stated above and additionally in view of the further elements recited in these dependent claims.

Applicant requests withdrawal of these rejections of claims 1, 2, and 6, and reconsideration and allowance of these claims.

Second §103 Rejection of the Claims

Claims 3, 4, and 5 were rejected under 35 USC § 103(a) as being unpatentable over Gregor et al. in view of Shi et al. and further in view of Sung (U.S. 2001/0011744). Applicant traverses these grounds for rejection.

Applicant respectfully submits that Sung does not cure the abovementioned deficiencies of Gregor in view of Shi with respect to claim 1. Since claims 3, 4, and 5 depend on claim 1, these dependent claims are patentable over Gregor in view of Shi and in further view of Sung for the reasons state above with respect to claim 1 and additionally in view of the further elements recited in these dependent claims.

Applicant requests withdrawal of these rejections of claims 3-5, and reconsideration and allowance of these claims.

Assertion of Pertinence

Applicant has not responded to the assertion of pertinence stated for the patents cited but not relied upon by the Office Action since these patents are not relied upon as part of the rejections in this Office Action. Applicant is expressly not admitting to any assertion of their pertinence and reserves the right to address the assertion should it form a part of some future rejection.

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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 371-2157 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743

Respectfully submitted,

LEONARD FORBES

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Date 16 October 2003

By

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 16 day of October, 2003.

Name

Signature

Tina Kohert

Z. H.

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